

Center for Neural Interfaces

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Background

Established in 1995, the center is researching arrays of micro-electrode probes designed to be inserted into the neural cortex and which provide multichannel interfacing to the central nervous system. The probes are capable of both sensing neural activity and stimulating neural responses. Ultimate human applications include artificial vision, hearing, and motor control to prosthetic devices.

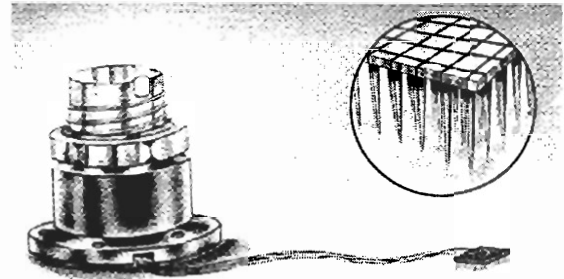
Technology Development Progress

- The center is developing prototype probes for continuing research and is commercializing the probes for the research community.
- The center is developing methods for the insertion of the electrode arrays into the cortical tissues and associated support systems, e.g. amplifiers, electrical cabling, data acquisition software, and data analysis software.

Highlights and Accomplishments

- Several prototypes have been assembled including an acute electrode array, a chronic electrode array, and a 16-channel amplifier system.

- A subsequent prototype has been completed that has a 25-channel neuroamplifier using high-density surface mount techniques.



- Bionic Technologies Inc. is being formed to undertake the marketing of multi-channel neural probes to be used by the research and development community. **Ultimate commercialization opportunities will include human applications in artificial vision, hearing, and prosthetic motor controls.**

*See newspaper article on page 50

Summary Data:

Current

1995-96 Award	\$80,000
Matching Funds	\$243,809
Patents Pending	0
Patents Issued	2
License Agreements	0
Spin-off Companies	0
Companies Assisted	3
Industry Jobs	0
Center Jobs	7

Cumulative

Awards	\$80,000
Matching Funds	\$243,809
Patents Issued	2
License Agreements	0
Spin-off Companies	0